



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/612,645

07/02/2003

Albert Louis Connelly

ALC-001

3698

24337

7590

04/21/2006

MILLER PATENT SERVICES
2500 DOCKERY LANE
RALEIGH, NC 27606

EXAMINER

HWANG, VICTOR KENNY

ART UNIT

PAPER NUMBER

3764

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,645

Applicant(s)

CONNELLY, ALBERT LOUIS

Examiner

Victor K. Hwang

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-32 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-19, 21, 22, 24-26, 33-41, 43-51 and 53-55 is/are rejected.
- 7) ☒ Claim(s) 10, 20, 23, 27, 42 and 52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/2/03 & 10/9/03 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/9/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: “200” referred to on page 7, line 26. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: “354” shown in Fig. 4; and “812” shown in Fig. 10B. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If

the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
- on page 3, line 6, “used” presumably should be changed to --use--;
 - on page 4, line 10, “no way” presumably should be changed to --way--;
 - on page 10, line 13, “are” presumably should be changed to --area--; and
 - on page 12, line 10, “124” presumably should be changed to --112--.
- Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, 5, 7, 8, 15, 16, 18, 19, 21, 33, 34, 36-38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by *Narragansett Machine Company – Adjustable Barbell* (Catalog of Gymnastic Apparatus, pg. 114, 1925). *Narragansett* discloses a weightlifting apparatus for use in conjunction with an exercise weight of the type that has a central aperture that permits the weight to be secured to various weightlifting appliances. A bar is shown having

first and second ends. Each end supports a latch disc or flange having a latch that is pivotally dropped into a selected hole in the end of the bar, a selected number of weight plates, and a nut.

A first one of the latch discs in conjunction with a first nut is considered to read upon the claim limitation of a means for securing the weight adjacent the first end of the bar. The first nut is considered to read upon the limitation of an end cap.

The second one of the latch discs is considered to read upon the claim limitation of a gripping plate, and the latch on the second latch disc is considered to read upon the limitation of a means situated adjacent the second end of the bar for attachment of a gripping plate. This latch is considered to be a hook or pin that is attached to the gripping plate to provide a pivotal attachment of the gripping plate to the bar. The gripping plate is disc shaped. The weights supported on the second end of the bar can also be considered gripping plates in some instances.

When weight plates are loaded onto the first end of the bar, the weights are connected to the gripping plate such that a user could exercise the hand, fingers and arms by lifting the weight by the gripping plate. Doing so would suspend the weight using the bar relative to the gripping plate. The bar and attached suspended weight plates can together be considered to be a weight that resides within the cavity (central aperture) of the gripping plate.

6. Claims 1-3, 6-8, 33, 34, 36, 38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by *Kracht* (US Pat. 5,078,392). *Kracht* discloses a weightlifting apparatus for use in conjunction with an exercise weight 80,82 of the type that has a central aperture that permits the weight to be secured to various weightlifting appliances. A bar 12 has first and second opposing ends.

On the first end of the bar, such as the left end, weights are secured in place on the bar by being clamped between an outer collar 90 having a set screw 92 and an inner collar 20 having set screws 38,44,50. The weight plates are supported by the bar 12 and a sleeve 70 slides over the bar and forms a handle near the second end of the bar. This second end of the bar can be considered to be that portion of the bar to the right of the first inner collar 20.

On the second end of the bar, weight plates are also secured to the bar in a similar manner. On this second end, the collars are considered to be means for attachment of a gripping plate. The weight plates or the second inner collar on the second end can be considered to be gripping plates. The weight plates and the inner collar are disc shaped.

A user could exercise their hand, fingers and arms by lifting the weights on the first end of the bar by engagement with the gripping plate on the second end of the bar. Engagement in this manner would have the weight plates on the first end of the bar suspended relative to the gripping plate. The bar and weight plates on the first end of the bar can be considered together as a weight that resides within a cavity of the gripping plate, i.e. the central aperture of the second inner collar or weight plates.

7. Claims 1, 2, 6-8, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by *Gogarty* (US Pat. 4,529,197). *Gogarty* discloses a weightlifting apparatus for use in conjunction with an exercise weight 14 of the type that has a central aperture that permits the weight to be secured to various weightlifting appliances. A bar 10 has first and second ends that each support weight plates 14, inner collars 12, and locking collars 16.

On the first end of the bar, a first inner collar and first locking collar provide a means for securing the weight adjacent the first end of the bar. The locking collar can be considered an end cap having an outer dimension larger than that of the bar. The head 46 of the bolt 42 can also be considered an end cap.

With regard to claims 6 and 14, the shank 44 of the bolt is considered to be the first end of the bar and the gripping portion 10 of the bar is a sleeve that slides over the bar and forms a handle near the second end, the portion 10 now being the second end. The bar is now a two part bar with a weight carrying part and a handle part, connected together by threaded engagement.

On the second end of the bar, the inner collar, weight plates or locking collar can be considered to read upon a gripping plate. The inner and locking collars provide means for attachment of the gripping plate to the second end of the bar 10.

8. Claims 33-36, 38, 40, 41 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by *Pointer* (US Pat. 5,709,634). *Pointer* discloses an exercise apparatus comprising a gripping plate 12 and a weight 40 or 50 connected to the gripping plate so that a user can exercise the hand, fingers and arms by lifting the weight by the gripping plate.

In a first embodiment, the weights 40 reside within a cavity 16 of the gripping plate. In a second embodiment, the weight plates 50 can be considered to be suspended from the gripping plate 12. The gripping plate 12 is irregularly shaped with a variable, multi-diameter shape. It also can be considered to have a hand contour shape and a gripping contour shape. A bar 60 attaches the weight plates 50 to the gripping plate 12.

The gripping plate has a perimeter that varies in diameter between at least three diameters. See Fig. 1. The widest diameter can be considered to be the dimension extending between opposite corners of the hand grips. The narrowest diameter can be considered to be the dimension extending across the central hole 66 between the upper and lower peripheries of the drawing in Fig. 1. The intermediate diameter can be considered any of the dimensions therebetween the narrowest and widest diameters. The intermediate portions of the periphery are curves so that they can be considered to comprise first and second opposed offset spiral segments.

9. Claims 46-48, 50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by *Rotella* (US Pat. 4,515,364). *Rotella* discloses an exercise device comprising a variable diameter gripping plate made of flexible material that can be squeezed and flexed to carry out hand and finger exercises. See Figs. 7 and 8 showing the flexibility of the gripping plate.

Note, applicant's specification on page 7, lines 6-11, discloses that the terms "gripping disk" or "gripping plate" synonymously refer to any suitably shaped structure that can be used to carry out exercises described herein, whether disk shaped, elliptical shaped, oval shaped, irregularly shaped, variable diameter shapes, multi-diameter shapes, hand or finger contour shaped, or any other suitable shape without limitation by the conventional meaning of the term "disk" and therefore, the shape of the gripping plate of *Rotella* is considered to satisfy the limitation of a gripping plate.

A weight 30 can be inserted into a cavity of the gripping plate and be suspended from the gripping plate. The weight 30 resides within the cavity when suspended. The perimeter varies in diameter between at least three diameters.

10. Claims 33-36, 38-41, 45-51 and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by *Weber* (CH 6422/66). *Weber* discloses an exercise apparatus that is a weighted plate that is also made of flexible material. The periphery of the plate can be considered to be at least variable, diameter shaped, multi-diameter shaped, hand contoured shaped and gripping contour shaped, and includes first and second opposed offset spiral segments defining a portion of the periphery. The plates are used in a dumbbell, wherein at least two plates are connected together by a flexible handle.

The gripping plate could be squeezed and flexed to carry out hand and finger exercises. The flexible handle and opposite weighted end constitute a weight that resides within the central aperture cavity of a gripping plate and is suspended relative thereto. The periphery of the plate varies in diameter between at least three diameters.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 2, 7-9, 11-13, 15, 16, 17, 21, 22, 24-26, 33-41, 43-51 and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Weber* (CH 6422/66) in view of *Hornbostel* (US Pat. 4,921,246). *Weber* has been discussed above, and such discussion is incorporated herein. *Weber* discloses the invention as claimed except for the means for securing the weight adjacent the first end of the bar (claims 1 and 16); means adjacent the second end of the bar for attachment of the gripping plate (claim 1), the means for attachment provides pivotal attachment (claim 15, 16 and 37); and the attaching means comprising one of the following: a hinged clamp with a wing nut that draws the hinged clamp into engagement with the bar, a split shaft collar secured by a screw, and a collar that is secured to the bar using a set screw (claim 17).

Weber also does not disclose the narrower diameter being approximately 5.15 inches, the intermediate diameter being approximately 5.62 inches, and the wider diameter being approximately 6.10 inches (claims 11, 24, 43 and 53); or the narrower diameter being approximately 4.43 inches, the intermediate diameter being approximately 4.85 inches, and the wider diameter being approximately 5.25 inches (claims 12, 25, 44 and 54).

Hornbostel discloses an exercise apparatus comprising a dumbbell having a flexible handle bar 1. Plates 5 are secured to the handle by inner and outer collars 4. The handle bar comprises a first end of the bar that is pivotal to the second end of the bar. The collars prevent the plates from unintended movement relative to the bar during exercise. The flexible bar provides improved flexibility, efficiency, and variety of use (col. 1, lines 49-60).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the dumbbell of *Weber* with the flexible bar and collars of

Hornbostel, wherein the collars prevent the plates from moving relative to the bar during exercise and the flexible bar provides improved flexibility, efficiency, and variety of use.

It would also have been obvious to one having ordinary skill in the art at the time the invention was made to use a collar having a set screw since the examiner takes Official Notice of the equivalence of collars and collars having set screws for their use in the exercise art and the selection of any of these known equivalents to secure a plate on a weight bar would be within the level of ordinary skill in the art.

With regard to the dimensions of the narrow, intermediate and wider diameters of the gripping plate, absent a persuasive showing of the criticality of the dimensions to the claimed invention, it would have been an obvious matter of design choice to provide the plates of *Weber* in view of *Hornbostel* with the dimensions as claimed, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). Weight plates are known in the exercise art to have a wide variety of diameters, dependent upon the weight resistance desired for exercise.

Allowable Subject Matter

13. Claims 28-32 are allowed.

14. Claims 10, 20, 23, 27, 42 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: with regard to claims 28-32, the prior art of record does not disclose the invention as claimed wherein the gripping plate has a clip attached thereto for attachment to the bar, thereby pivotally attaching the gripping plate to the bar by using a pin passing through the clip.

With regard to claim 20, the prior art of record does not disclose the invention as claimed wherein there is a pivotal attachment between the second end of the bar and the gripping plate and further comprising a sleeve that slides over the bar and forms a handle near the second end.

With regard to claim 27, the prior art of record does not disclose the invention as claimed wherein there is a pivotal attachment between the second end of the bar and the gripping plate and further the bar comprising a two part bar with a weight carrying end and a handle part, connected together by a threaded connection.

With regard to claims 10, 23, 42 and 52, the prior art of record does not disclose the invention as claimed wherein the gripping plate has the shape as described wherein at a second point, the perimeter drops abruptly to beyond the narrower diameter and then curves outward to the narrow diameter.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hall (US Pat. 1,779,594), *Venables* (US Pat. 2,244,351), *Miller* (US Pat. 3,022,073), *Petrachonis et al.* (US Pat. 4,288,073), *Zwilling* (US Pat. 4,482,151), *Doss* (US Pat. 5,221,244), *Azzouni* (US Pat. 5,399,135) and *Rollinson* (GB 2,162,076 A) disclose exercise apparatus having

features that include plates secured to ends of a bar, various shaped plates, and various means for securing the plates to the bars.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor K. Hwang whose telephone number is (571) 272-4976. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM Eastern time.

The facsimile number for submitting papers directly to the examiner for informal correspondence is (571) 273-4976. The facsimile number for submitting all formal correspondence is (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on (571) 272-4887.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor K. Hwang
April 17, 2006